

Monday, 12/01/2009 2:37:35 PM
Julie Dawson

Process Sheet

Jphx

Customer : CU-DAR001 Dart Helicopters Services
Job Number : 44673
Estimate Number : 13030
P.O. Number :
This Issue : 12/01/2009 **S.O. No.** :
Prsht Rev. : NC
First Issue : / / **Type** : SMALL /MED FAB
Previous Run : 43664
Written By :
Checked & Approved By : JLO 09.01.13
Comment : Est Rev:A New Issue 07-09-27 DD verified by: EC
 Est Rev:B ECN 1113P 08-01-22 DD
 Est Rev:C ecn1162 08-04-02 DD verified by: EC

Drawing Name : WELDMENT TOP PANEL
Part Number : D36505
Drawing Number : D3650 REV.C
Project Number : N/A
Drawing Revision : C
Material :
Due Date : 02/02/2009 **Qty:** 4 **Um:** Each

Additional Product

Job Number:



Seq. #: **Machine Or Operation:** **Description :**

1.0 M304S26GA 304/316 0.018 SHEET



Comment: Qty.: 0.8537 sf(s)/Unit Total: 3.4146 sf(s)
 304/316 SS sheet 26 ga (0.018" thick)
 Batch: 109398 B 9-1-21

2.0 WATER JET FLOW WATER JET



Comment: FLOW WATER JET
 1-Cut as per Dwg D3650
 Dwg Rev: C
 Prog Rev: C

B 9-1-21

(6)

2-Deburr if necessary

B 9-1-21

3.0 QC2 INSPECT PARTS AS THEY COME OFF MACHINE



Comment: INSPECT PARTS AS THEY COME OFF MACHINE

B 9-1-21

4.0 QC8 SECOND CHECK



Comment: SECOND CHECK

S 09/01/21 (x6)

5.0 BRAKE NC NC BRAKE



Comment: NC BRAKE
 Form as per Dwg D3650

SB 09/01/27

(6)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Date: Monday, 12/01/2009 2:37:36 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WELDMENT TOP PANEL

Job Number: 44673

Part Number: D36505

Job Number:



Seq. #: Machine Or Operation: Description :

6.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

Sc 09/01/29 (X6)

7.0

D36507

Seal



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

SEAL

batch: 35924x2 / 43821x2

FF 09/01/29

8.0

D36509

Angle



Comment: Qty.: 1.0000 Each(s)/Unit Total: 4.0000 Each(s)

ANGLE

batch: 42097x1 / 43823x5

FF 09/01/29

9.0

AN06004

WASHER



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

WASHER

batch: 106431

FF 106431

09/01/09

10.0

NAS9307M403

RIVET



Comment: Qty.: 12.0000 Each(s)/Unit Total: 48.0000 Each(s)

RIVET

batch: 1109680

FF 1109680

09/01/09

11.0

MS20427M33

Rivet



Comment: Qty.: 8.0000 Each(s)/Unit Total: 32.0000 Each(s)

Rivet

batch: 110022

FF 09/01/29

12.0

MS210603K

Nut Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Nut Plate

batch: 1109371

FF 09/01/29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: D3650-5 PAR #: _____ Fault Category: _____ NCR: Yes (No) DQA: X Date: 09/04/15
 Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR: <u>44673</u>		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			
09.01.29	9.0 + 10.0	MS206153M5 PROVES TO BE TOO HARD TO INSTALL SINCE MATL THICKNESS IS VERY THIN (0.018"). ESTHETICALLY UNACCEPTABLE.	<u>CP</u> 09.01.29	GO BACK TO INSTALLATION OF D3650-7-8.19 + D3650-9 TO D3650-5B PER REV. B	<u>SB</u> 09/02/03	<u>CP</u> 09/02/03	<u>CP</u> 09.01.29	<u>S</u> 9/4/13
			<u>CP</u> 09.02.03 per 09/04/12	D3893-1 B45377 ADDED 10 INCREASE THICKNESS. USED NAS937M44 RIVETS BECAUSE OF INCREASED THICKNESS	<u>SB</u> 09/02/03	<u>CP</u> 09/02/03	<u>CP</u> 09.02.03 per 09/04/12	<u>S</u> 9/4/13
			<u>CP</u> 09.02.03 per 09/04/12	Acceptable to install 0.018" THICK AISI304 SHEET DOUBLER TO INCREASE THICKNESS. MATL BIN M10939B	<u>SB</u> 09/02/03	<u>CP</u> 09/02/03	<u>CP</u> 09.02.03 per 09/04/12	<u>S</u> 9/4/13

NOTE: Date & initial all entries

Date: Monday, 12/01/2009 2:37:36 PM
User: Julie Dawson

Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: WELDMENT TOP PANEL

Job Number: 44673

Part Number: D36505

Job Number:



Seq. #:

Machine Or Operation:

Description :

13.0

MS210623K

Nut Plate



Comment: Qty.: 2.0000 Each(s)/Unit Total: 8.0000 Each(s)

Nut Plate

batch: 77109438 x 5 / m209513 x 3

FF 09/01/29

14.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: Assemble as per dwg D3650

FF 09/01/29

15.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

8080103 (43)

16.0

PACKAGING 1

PACKAGING RESOURCE #1



Comment: PACKAGING RESOURCE #1

Identify and stock

Location: 189

9/4/6

(3X)

50

17.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

09/04/06

Job Completion



MF 09-04-06

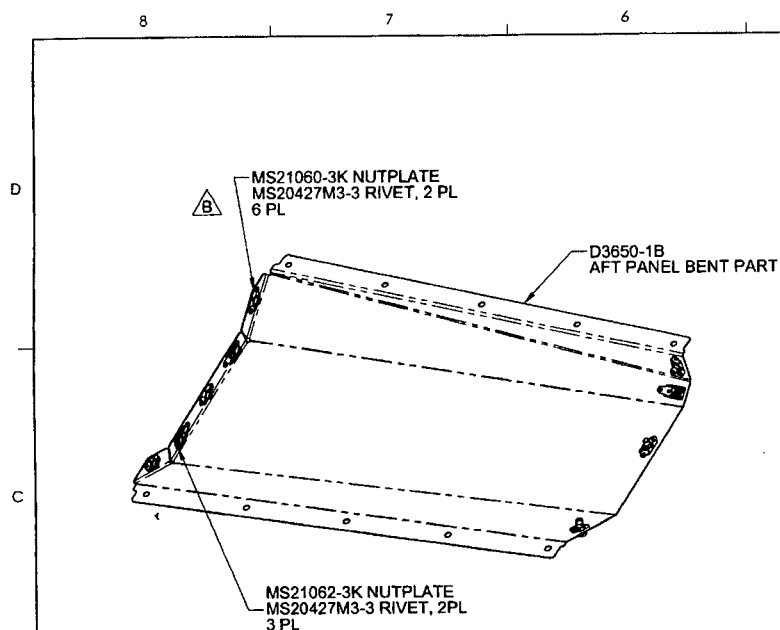
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

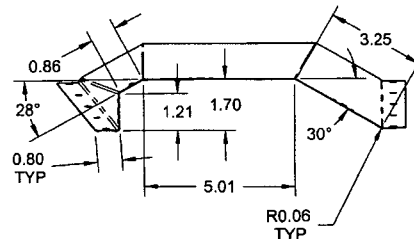
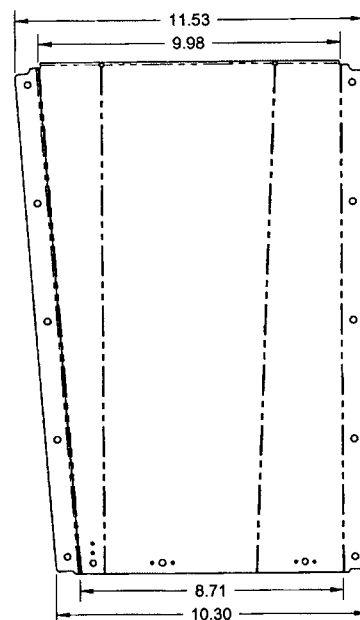
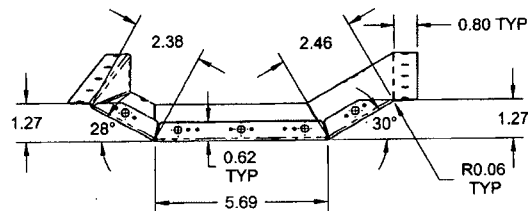
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

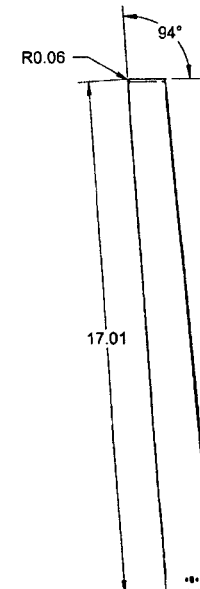
NOTE: Date & initial all entries



D3650-1 AFT PANEL



QTY	PART NUMBER	DESCRIPTION
-1	D3650-1	AFT PANEL
1	D3650-1B	AFT PANEL BENT PART
18	MS20427M3-3	RIVET
6	MS21060-3K	NUTPLATE
3	MS21062-3K	NUT PLATE

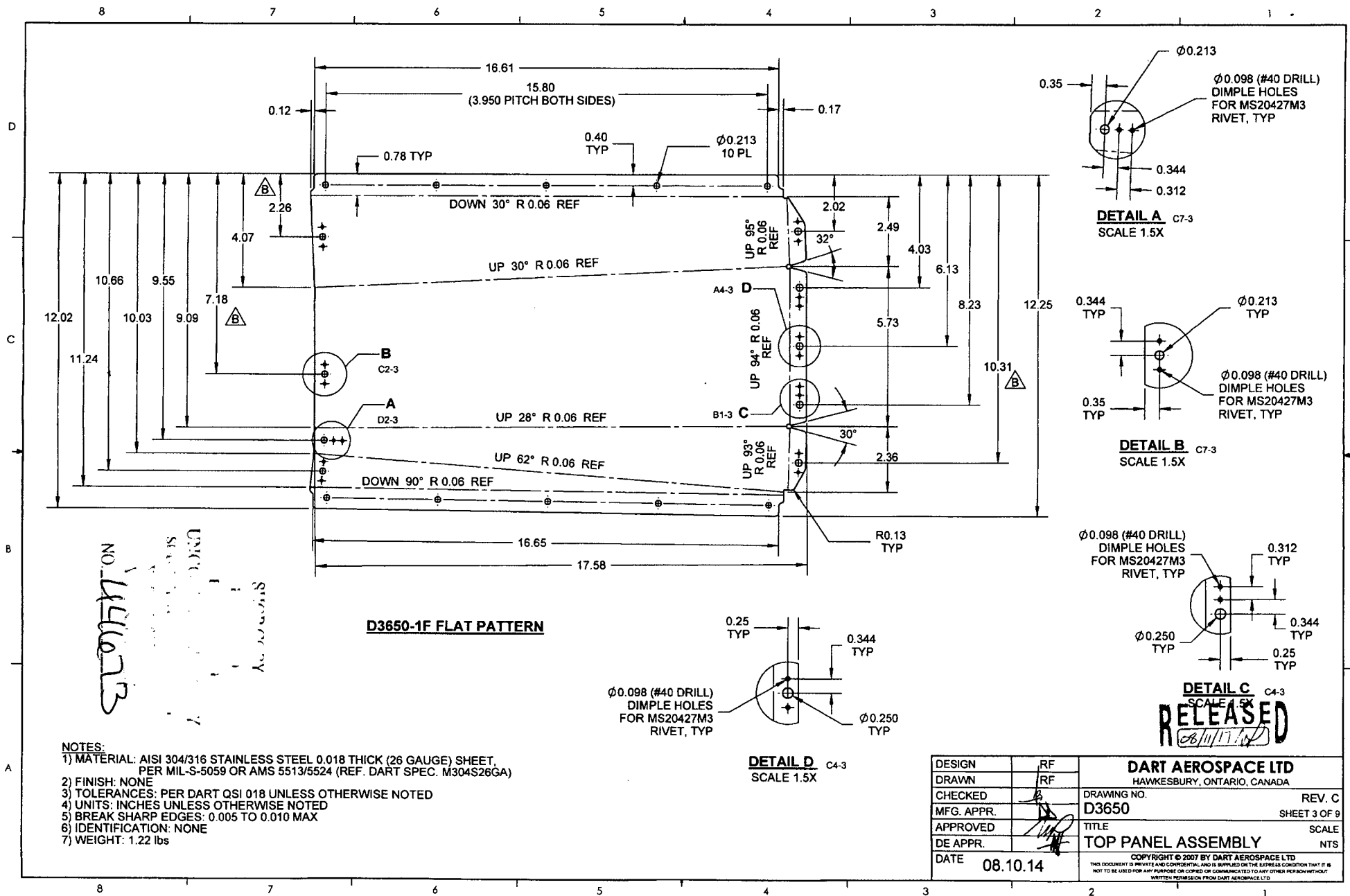


D3650-1B AFT PANEL BENT PART
(MAKE FROM D3650-1F FLAT PATTERN)

RELEASED
08/10/14

- NOTES:
- 1) FINISH: NONE
 - 2) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 3) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 4) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 5) IDENTIFICATION: NONE
 - 6) WEIGHT: 1.3 lbs

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 2 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
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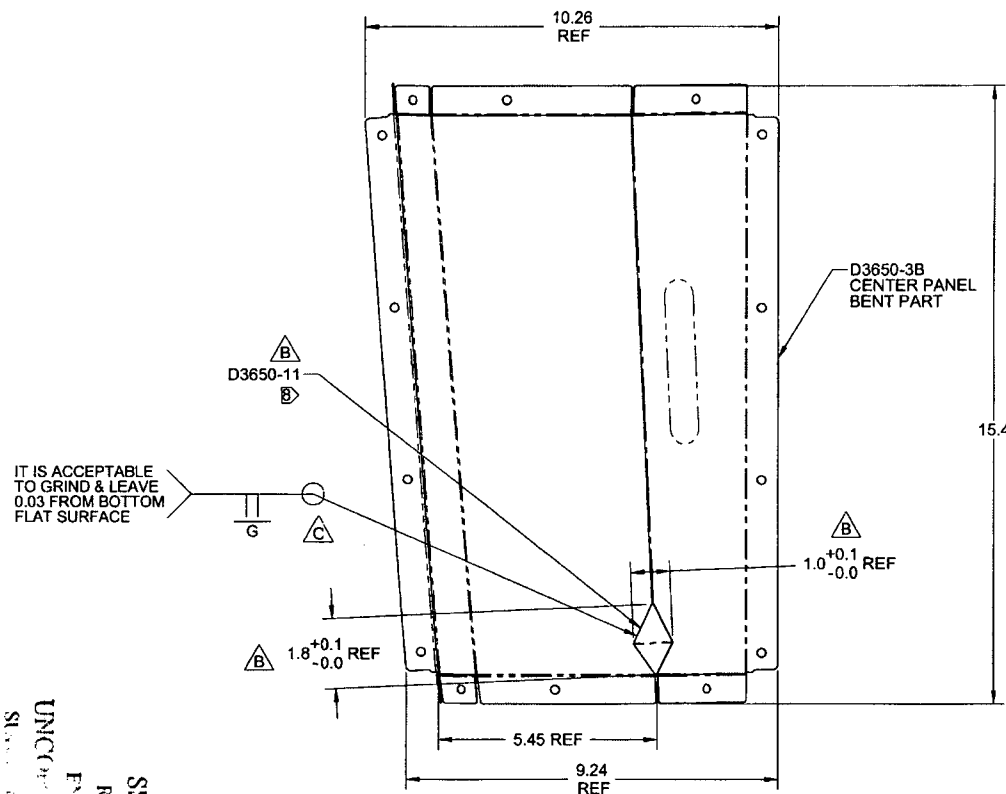
NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 1.22 lbs

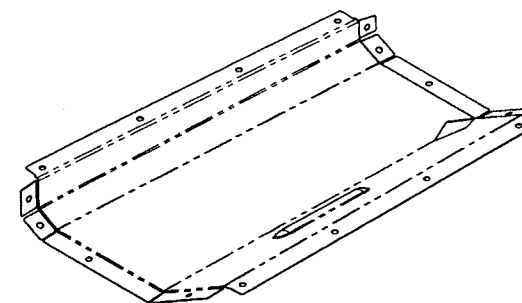
DETAIL D C4-3
SCALE 1.5X

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO. D3650	REV. C SHEET 3 OF 9
MFG. APPR.		TITLE TOP PANEL ASSEMBLY	SCALE NTS
APPROVED		<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small>	
DE APPR.			
DATE	08.10.14		

QTY	PART NUMBER	DESCRIPTION
-3		
X	D3650-3	CENTER PANEL
1	D3650-3B	CENTER PANEL BENT PART
1	D3650-11	FILLER PLATE



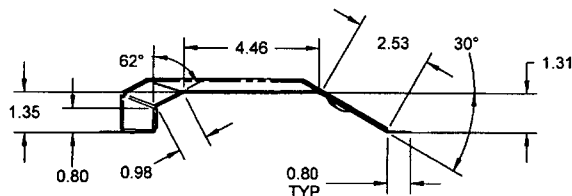
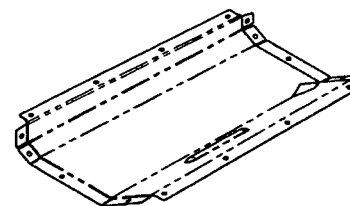
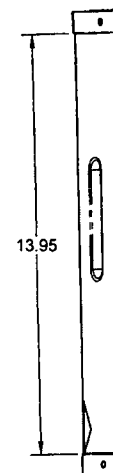
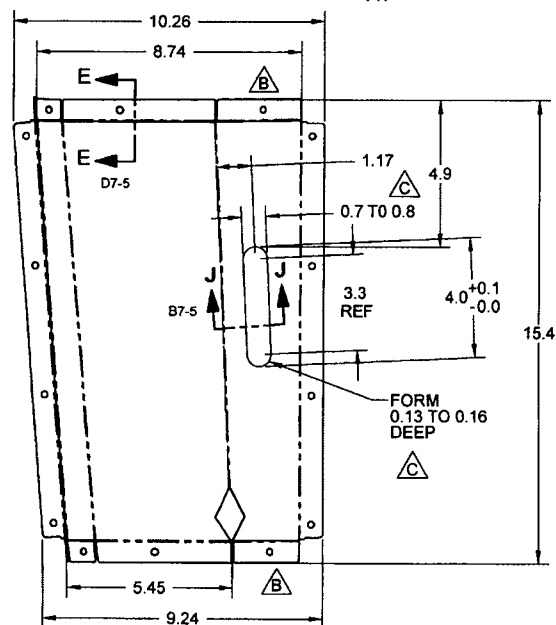
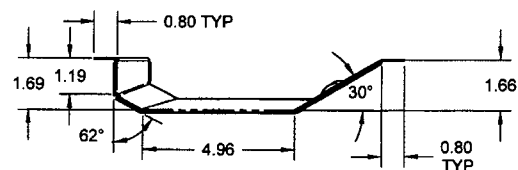
D3650-3 CENTER PANEL
(LOOKING FROM OUT SIDE SURFACE)



RELEASED
08.11.17

- NOTES:
- 1) WELD PER QSI 004
 - 2) FINISH: NONE
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 1.0 lb
 - 8) TRIM D3650-11 TO FIT AS REQUIRED





DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 4 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	<small>COPYRIGHT © 2007 BY DART AEROSPACE LTD THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD</small>	

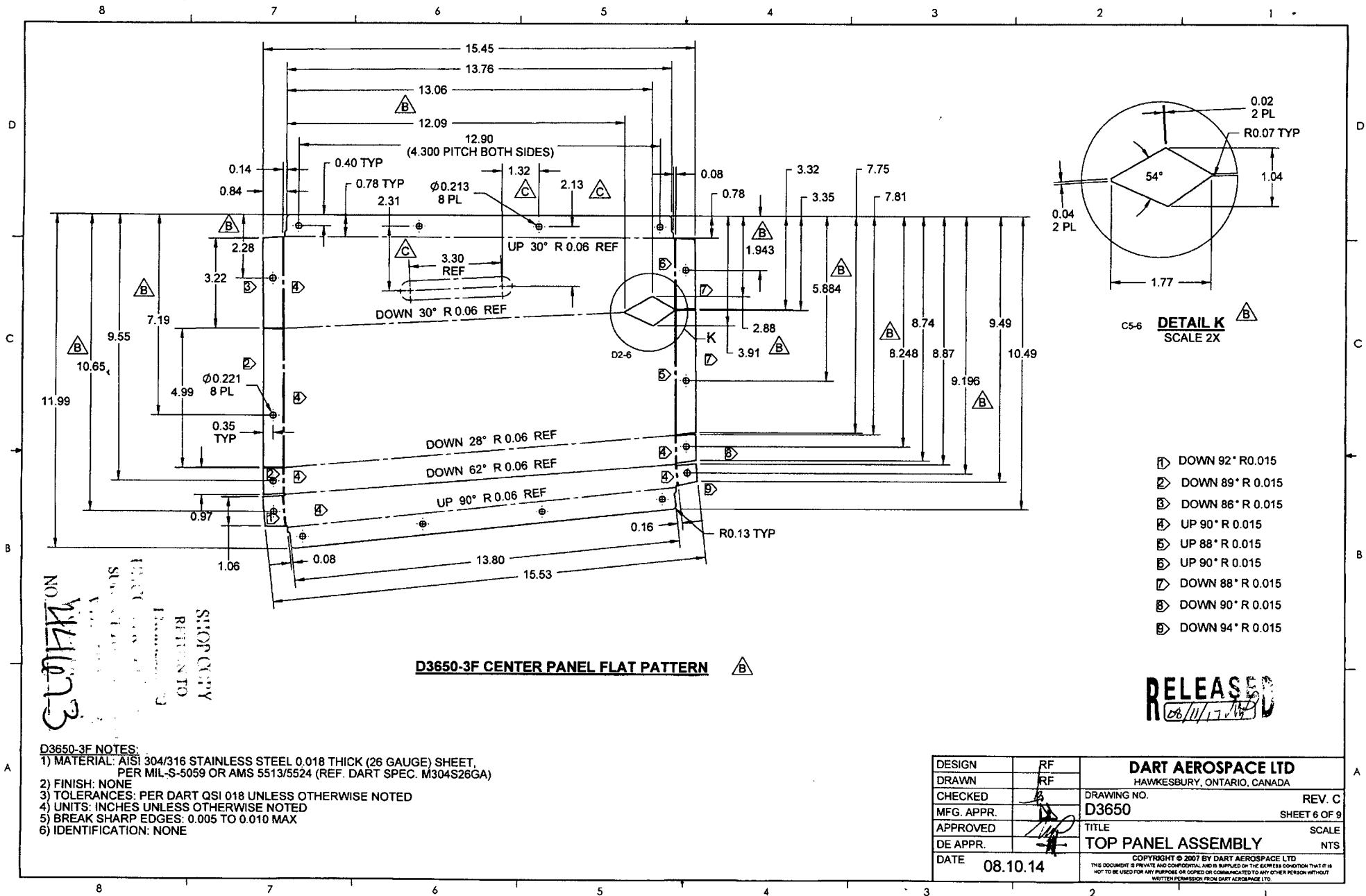


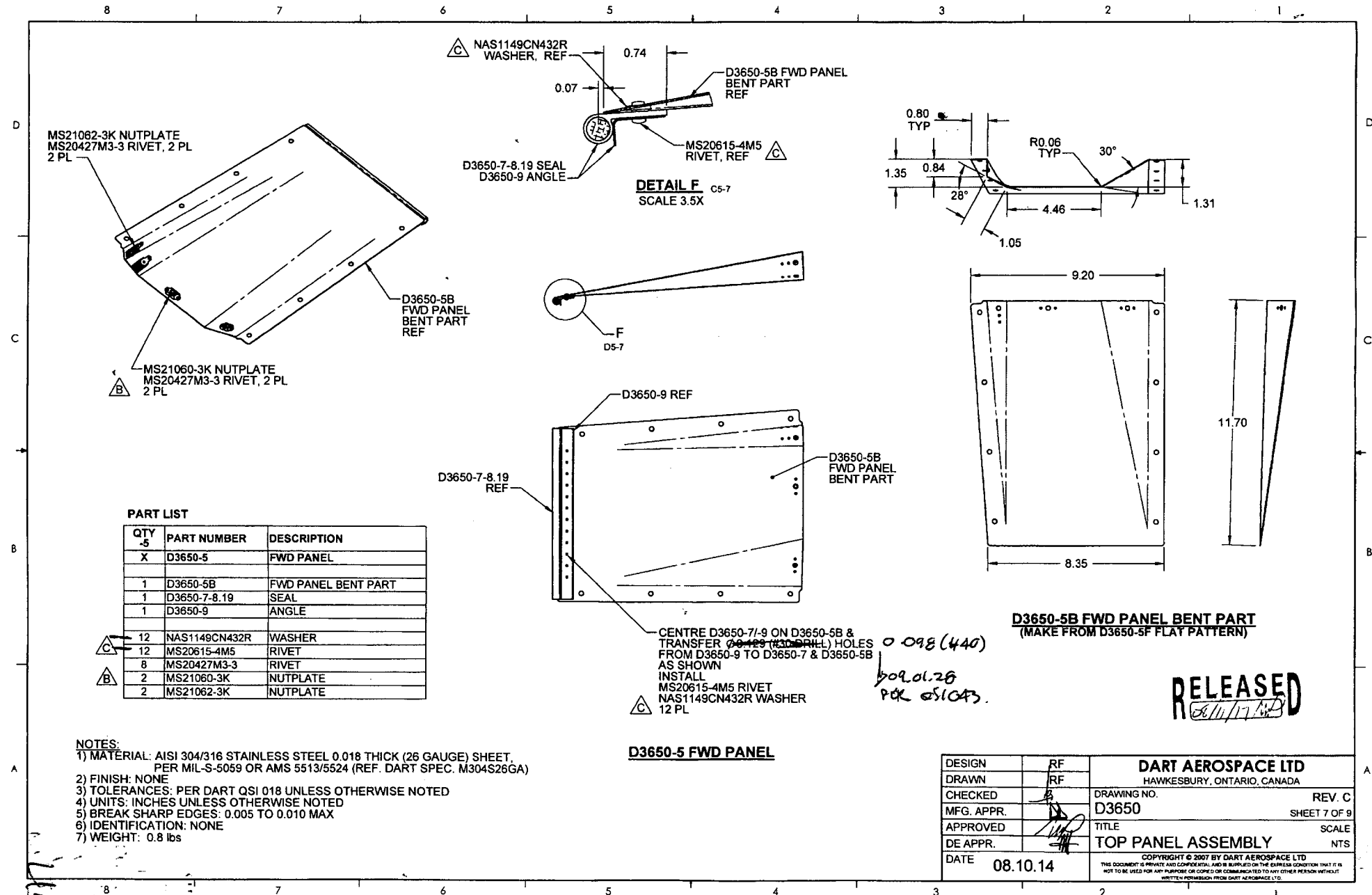
RELEASE
08/11/17

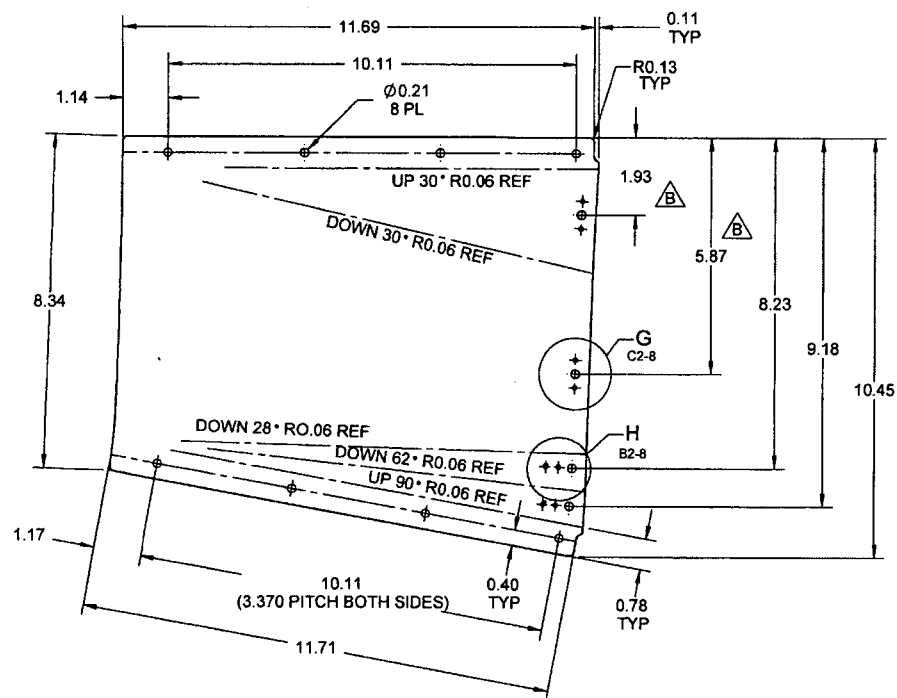
NOTES:
1) FINISH: NONE
3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
4) UNITS: INCHES UNLESS OTHERWISE NOTED
5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
6) IDENTIFICATION: NONE

D3650-3B CENTER PANEL BENT PART
(MAKE FROM D3650-3F FLAT PATTERN)

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 5 OF 5
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD. THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT THE WRITTEN PERMISSION OF DART AEROSPACE LTD.	



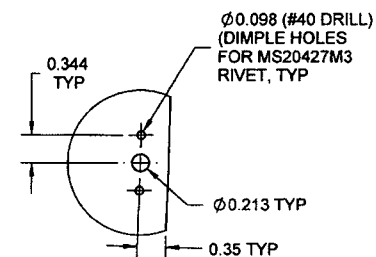
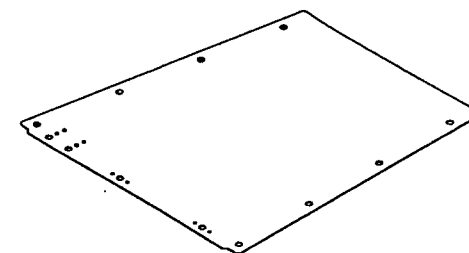




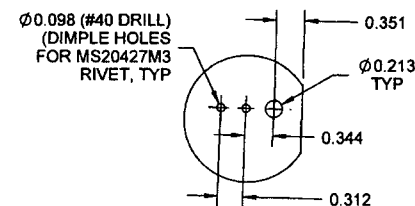
D3650-5F FLAT PATTERN

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.6 lb







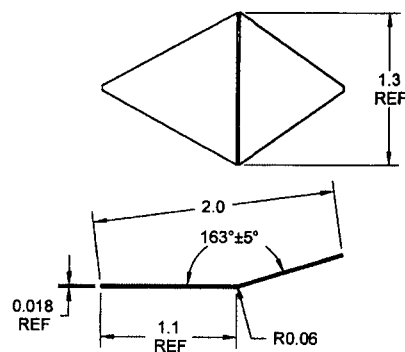
DETAIL G
2 PL
SCALE 1.5X



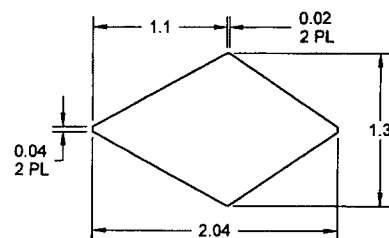
DETAIL H
2 PL
SCALE 1.5X

RELEASED
08/11/17

DESIGN	RF	DART AEROSPACE LTD	
DRAWN	RF	HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. C
MFG. APPR.		D3650	SHEET 8 OF 9
APPROVED		TITLE	SCALE
DE APPR.		TOP PANEL ASSEMBLY	NTS
DATE	08.10.14	COPYRIGHT © 2007 BY DART AEROSPACE LTD	
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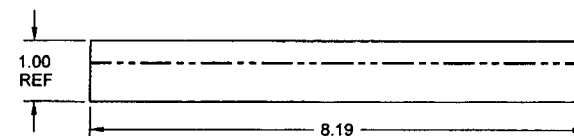
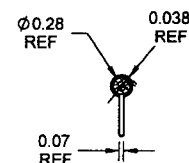
D3650-11 FILLER PLATE
(MAKE FROM D3650-11F FLAT PATTERN)



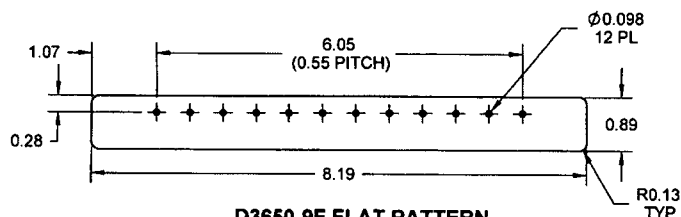
D3650-11F FLAT PATTERN



D3650-9 ANGLE
(MAKE FROM D3650-9F FLAT PATTERN)



D3650-7-8.19 SEAL



D3650-9F FLAT PATTERN

D3650-7-8.19 NOTES:

- 1) MATERIAL: P/N 8168-1 TADPOLE SEAL (REF. BELL P/N 120-104-1)
POSSIBLE SUPPLIER: EAGLE COPTERS OR BELL
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.05 lb
- 8) PART NUMBER: D3650-7-X.XX
WHERE X.XX = LENGTH IN INCHES
EG. 12.50" LONG = D3650-7-12.50

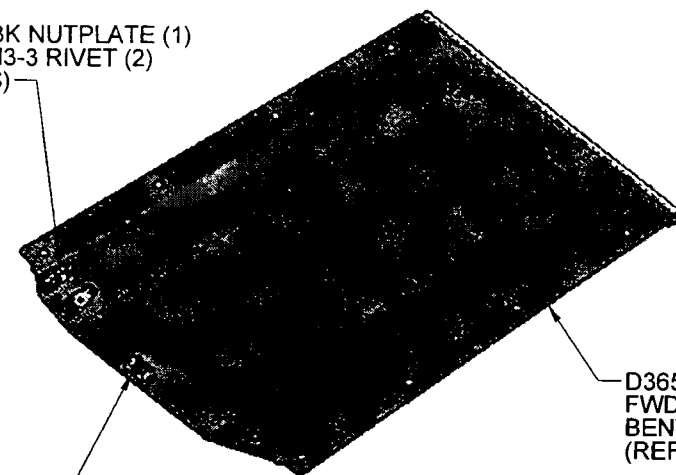
D3650-9 & D3650-11 NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET,
PER MIL-S-5059 OR AMS 5513/5524 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) D3650-9 WEIGHT: 0.05 lb
D3650-11 WEIGHT: 0.007 lb

RELEASED
08/11/17

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWN	RF		
CHECKED		DRAWING NO. D3650	REV. C
MFG. APPR.		TITLE TOP PANEL ASSEMBLY	SHEET 9 OF 9
APPROVED		SCALE	NTS
DE APPR.		COPYRIGHT © 2007 BY DART AEROSPACE LTD	
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MS21062-3K NUTPLATE (1)
MS20427M3-3 RIVET (2)
(2 PLACES)



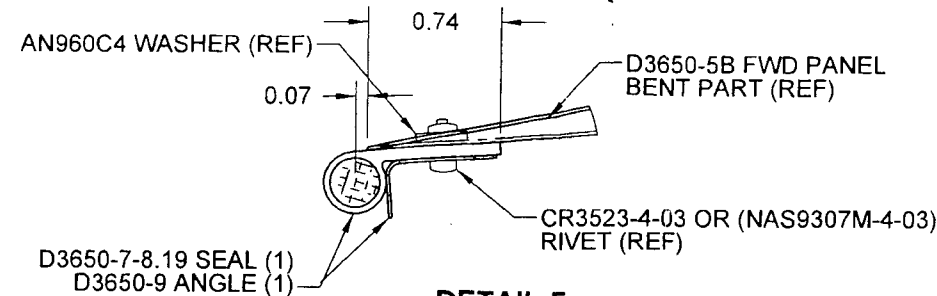
MS21060-3K NUTPLATE (1)
MS20427M3-3 RIVET (2)
(2 PLACES)

PART LIST

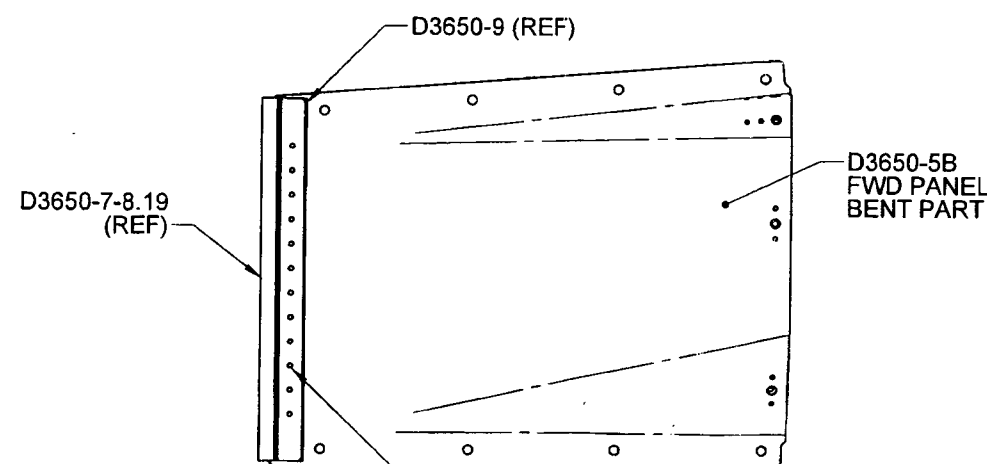
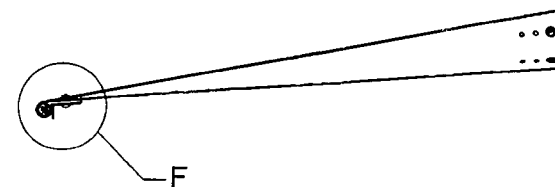
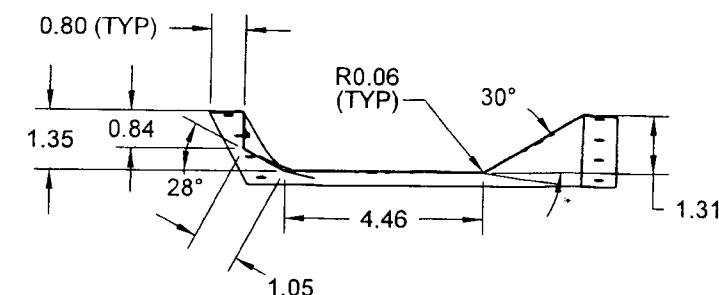
QTY .5	PART NUMBER	DESCRIPTION
X	D3650-5	FWD PANEL
1	D3650-5B	FWD PANEL BENT PART
1	D3650-7-8.19	SEAL
1	D3650-9	ANGLE
12	AN960C4	WASHER
12	CR3523-4-03 or NAS9307M-4-03	RIVET
8	MS20427M3-3	RIVET
2	MS21060-3K	NUTPLATE
2	MS21062-3K	NUTPLATE

NOTES:

- 1) MATERIAL: AISI 304/316 STAINLESS STEEL 0.018 THICK (26 GAUGE) SHEET, PER MIL-S-5019 (REF. DART SPEC. M304S26GA)
- 2) FINISH: NONE
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.8 lbs



DETAIL F



D3650-5 FWD PANEL

CENTRE D3650-7/-9 ON D3650-5B &
TRANSFER $\phi 0.129$ (#30 DRILL) HOLES
FROM D3650-9 TO D3650-7 & D3650-5B
AS SHOWN
INSTALL
CR3523-4-03 OR NAS9307M-4-03 RIVET (1)
AN960C4 WASHER (1)
(12 PLACES)

D3650-5B FWD PANEL BENT PART (MAKE FROM D3650-5F FLAT PATTERN)

SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
44673

DESIGN	RF	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA
DRAWN	RF	
CHECKED	LE	DRAWING NO. D3650
MFG. APPR.		REV. B SHEET 7 OF 9
APPROVED		TITLE TOP PANEL ASSEMBLY
DE APPR.		SCALE 1:4
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